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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/541,644	12/16/2005	Jean-Francois Carpentier	F-865 (31223.00089)	3464
25264	7590	10/16/2006	EXAMINER	
FINA TECHNOLOGY INC			LEE, RIP A	
PO BOX 674412			ART UNIT	
HOUSTON, TX 77267-4412			PAPER NUMBER	

1713

DATE MAILED: 10/16/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

10/541,644

Applicant(s)

CARPENTIER ET AL.

Examiner

Rip A. Lee

Art Unit

1713

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 15-34 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 15, 17-20, 29 and 33 is/are allowed.
- 6) ☒ Claim(s) 23-28 is/are rejected.
- 7) ☒ Claim(s) 16, 21, 22, 25, 27, 30-32 and 34 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 07-06-2005 is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |                                                                                                            |                                                                                         |
|------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                                | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                       | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date ____. | 6) <input type="checkbox"/> Other: ____.                                                |

## DETAILED ACTION

### *Claim Objections*

1. Claims 16 and 32 are objected to under 37 CFR 1.75(c), as being of improper dependent form for failing to further limit the subject matter of a previous claim. Applicant is required to cancel the claims, or amend the claims to place the claims in proper dependent form, or rewrite the claims in independent form. The elements neodymium and samarium belong in the class of lanthanides rather than group III. Therefore, claims 16 and 32 fail to limit further the subject matter of claims 15 and 23, respectively.
2. Claims 21, 22, 27, and 34 are objected to because of the following informalities: Please replace both occurrences of "oxide" in each claim with the conventional term "ether." For claims 21 and 34, insert a comma between the words "tetrahydrofuran" and "dioxane." Appropriate corrections are required.
3. Claim 25 is objected to because of the following informalities: The term " $\text{Mg}(\text{C}_3\text{R}'_5)$ " is incomplete. The Appropriate correction is required.
4. Claim 30 is objected to because of the following informalities: Replace " $\text{C}_{3+}$  alpha olefins" with "a  $\text{C}_{3+}$  alpha olefin." Appropriate correction is required.
5. Claim 31 is objected to because of the following informalities: Insert "a" prior to the word "methacrylate." Appropriate correction is required.

***Claim Rejections - 35 USC § 112***

6. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

7. Claims 23-28 provides for a method of preparing a metallocene catalyst component, but, since the claim does not set forth any steps involved in the method/process, it is unclear what method/process applicant is intending to encompass. A claim is indefinite where it merely recites a use without any active, positive steps delimiting how this use is actually practiced.

Claims 23-28 are also rejected under 35 U.S.C. 101 because the claimed recitation of a use, without setting forth any steps involved in the process, results in an improper definition of a process, *i.e.*, results in a claim which is not a proper process claim under 35 U.S.C. 101. See for example *Ex parte Dunki*, 153 USPQ 678 (Bd.App. 1967) and *Clinical Products, Ltd. v. Brenner*, 255 F. Supp. 131, 149 USPQ 475 (D.D.C. 1966).

***Allowable Subject Matter***

8. The following is a statement of reasons for the indication of allowable subject matter: Claims 15, 17-20, 29, and 33 are allowed over the closest references cited below.

The present invention is drawn to a metallocene having the formula  $(\text{FluR}''\text{Cp})\text{M}(\eta^3\text{-C}_3\text{R}'_5)(\text{ether})_n$ , where M is a group III metal. *Here, M is understood to include scandium (Sc), yttrium (Y), and lanthanum (La) only.*

Another aspect of the invention is a polymerization process comprising contacting a catalyst system containing said metallocene with ethylenically unsaturated monomer. Claims 16, 21, 22, 30-32, and 34 would be allowed upon appropriate amendments to claims to overcome claim objections (*vide supra*).

Art Unit: 1713

Qian *et al.* (*Organometallics*, 2000) discloses the bridged dimers  $[\text{Me}_2\text{Si}(\text{C}_5\text{H}_4)(\text{C}_{13}\text{H}_8)\text{YCl}]_2$  and  $[\text{Ph}_2\text{Si}(\text{C}_5\text{H}_4)(\text{C}_{13}\text{H}_8)\text{YCl}]_2$  as well as monomeric lanthanocenes,  $\text{Me}_2\text{Si}(\text{C}_5\text{H}_4)(\text{C}_{13}\text{H}_8)\text{LnN}(\text{SiMe}_3)_2$  and  $\text{Me}_2\text{Si}(\text{C}_5\text{H}_4)(\text{C}_{13}\text{H}_8)\text{LnCH}(\text{SiMe}_3)_2$  wherein  $\text{Ln} = \text{Dy}$  and  $\text{Er}$ . The compounds do not contain the requisite  $\eta^3$ -allyl ancillary ligand.

Lee *et al.* (*Organometallics*, 1999) discloses the group III "ate" complex,  $[\text{Me}_2\text{Si}(\text{C}_5\text{Me}_4)(\text{C}_{13}\text{H}_8)\text{YCl}_2]\text{Li}(\text{OEt}_2)_2$  and the corresponding neutral complex,  $\text{Me}_2\text{Si}(\text{C}_5\text{Me}_4)(\text{C}_{13}\text{H}_8)\text{YN}(\text{SiMe}_3)_2$ . Clearly, these compounds do not possess the structural features of the compound of the instant invention.

The general subject matter of claims 23-28 are novel over the prior art. Claims need to be amended to include active process steps. Applicants are reminded that claims 23-28 are also drawn to use of group III metals only.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Rip A. Lee whose telephone number is (571)272-1104. The examiner can be reached on Monday through Friday from 9:00 AM - 5:00 PM. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Wu, can be reached at (571)272-1114. The fax phone number for the organization where this application or proceeding is assigned is (571)273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on the access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll free).

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October 6, 2000



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